UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,160	09/09/2003	Emmanuel Marilly	Q77141	1014

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EXAMINER
DWIVEDI, MAHESH H

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/657,160	MARILLY ET AL.
	Examiner	Art Unit	
	Mahesh H. Dwivedi	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2006*.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>09 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20060919.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 09/09/2003 has been

received, entered into the record, and considered. The submission is in compliance

with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is

being considered by the examiner.

Response to Amendment

2.   Receipt of Applicant's Amendment, filed on 07/14/2006, is acknowledged. The

amendment includes amending the specification and the amending of claims 1-20.

Specification

3.   The objections raised in the office action mailed on 03/14/2006 have been

overcome by the applicant's amendments received on 07/14/2006.

Claim Objections

4.   The objections raised in the office action mailed on 03/14/2006 have been

overcome by the applicant's amendments received on 07/14/2006.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
>
> or described as set forth in section 102 of this title, if the differences between the
>
> subject matter sought to be patented and the prior art are such that the subject
>
> matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was

made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

6.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Barkan et al. (U.S. Patent 6,925,493) and in view of **Tunnicliffe et al.** (U.S. Patent

6,272,110).

7.   Regarding claim 1, **Barkan** teaches a device comprising:

A) processing means arranged so as to determine primary data representing a state of

use of the network by at least one user who has made a service level agreement, or

"SLA", with an operator of said network, from said management data (Column 2, lines

41-46); and

B) then to compare said state of use with ancillary data representing said SLA, so as to determine an action to be undertaken in the event of the detection of at least one difference between said primary data and said ancillary data (Column 2, lines 41-46).

Barkan does not explicitly teach:

C) said processing means being arranged in order to determine said action to be undertaken amongst an action group comprising a proposal to modify the SLA made between said user and said operator and/or a proposal to modify the services and/or resources of said network; and

D) to adapt at least some of the SLA modification proposals according to said difference detected.

Tunnicliffe, however, teaches **"said processing means being arranged in order to determine said action to be undertaken amongst an action group comprising a proposal to modify the SLA made between said user and said operator and/or a proposal to modify the services and/or resources of said network"** as "the customer obtains predicted values for his bandwidth levels, for example, and this information is used automatically by his agent on his behalf to renegotiate the service level agreement" (Column 2, lines 42-46), and **"to adapt at least some of the SLA modification proposals according to said difference detected"** as "an agent reasons about an offer and either accepts, rejects or generates a counter-offer is represented by a negotiation model" (Column 6, lines 53-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching

Tunnicliffe's would have allowed **Barkan's** to provide a simple and easy to use method to manage a customer network with different customers having different priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claims 2 and 12, **Barkan** further teaches a device and method comprising:

A) characterized in that said primary data represent a use of at least one service and/or of resources (Column 2, lines 41-46, Column 5, lines 35-47).

Regarding claim 3, **Barkan** does not explicitly teach a device comprising:

A) characterized in that said processing means are arranged so as to adapt at least some of the proposals to modify the services and/or resources of said network according to at least one SLA modification proposal.

Tunnicliffe, however, teaches **"characterized in that said processing means are arranged so as to adapt at least some of the proposals to modify the services and/or resources of said network according to at least one SLA modification proposal"** as "an agent reasons about an offer and either accepts, rejects or generates a counter-offer is represented by a negotiation model" (Column 6, lines 53-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Tunnicliffe's** would have allowed **Barkan's** to provide a simple and easy to use

method to manage a customer network with different customers having different

priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 4, **Barkan** further teaches a device comprising:

A) <u>characterized</u> in that said processing means are arranged so as to adapt at least

some of the proposals to modify the services and/or resources of said network

according to <u>external</u> data (Column 5, lines 30-34).

Regarding claim 5, **Barkan** does not explicitly teach a device comprising:

A) <u>characterized</u> in that said processing means are arranged so as to determine at

least some of the states of use in the form of a usage profile (SUP) in a chosen time

interval, from management data corresponding to said time interval.

Tunnicliffe, however, teaches "<u>characterized</u> in that said processing means

are arranged so as to determine at least some of the states of use in the form of a

usage profile (SUP) in a chosen time interval, from management data

corresponding to said time interval" as "the trends analyser is trained using historic

logs of network traffic, allowing its neural network to learn expected network traffic

behavioral patterns. Once trained the trends analyser is able to predict future traffic

demand based on the current monitored traffic, which may be presented to the user

graphically" (Column 5, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because teaching

Tunnicliffe's would have allowed **Barkan's** to provide a simple and easy to use

method to manage a customer network with different customers having different

priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 6, **Barkan** further teaches a device comprising:

A) <u>characterized</u> in that said processing means are arranged so as to determine an

action to be undertaken from several states of use associated with different users or a

state of use associated with a group of users (Column 5, lines 30-34).

Regarding claim 7, **Barkan** does not explicitly teach a device comprising:

A) <u>characterized</u> in that said processing means are arranged so as to automatically

initiate an SLA modification when at least one condition is satisfied.

Tunnicliffe, however, teaches **"<u>characterized</u> in that said processing means**

are arranged so as to automatically initiate an SLA modification" as "the customer

obtains predicted values for his bandwidth levels, for example, and this information is

used automatically by his agent on his behalf to renegotiate the service level

agreement" (Column 2, lines 42-46, Figure 1), and **"when at least one condition is**

satisfied" as "traffic levels are only one example of an operations measurement that

can be predicted and used for network management" (Column 3, lines 22-31, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because teaching

Tunnicliffe's would have allowed **Barkan's** to provide a simple and easy to use

method to manage a customer network with different customers having different

priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 8, **Barkan** further teaches a device comprising:

A) characterized in that said processing means are arranged so as to automatically

initiate said SLA modification when it is associated with an increase in the tariff of the

user less than a penalty representing the violation of the SLA by the user (Column 2,

lines 41-46).

Regarding claim 9, **Barkan** further teaches a device comprising:

A) characterized in that said processing means are arranged so as to make their

determinations periodically (Column 9, lines 56-60).

Regarding claim 10, **Barkan** further teaches a device comprising:

A device for managing a communications network (N), characterized in

that it comprises a processing device according to claim 1 (Column 5, lines 30-53).

Regarding claim 11, **Barkan** teaches a method comprising:

A) determining primary data representing a state of use of the network by at least one

user who has made a service level agreement, or "SLA", with an operator of said

network, from said management data (Column 2, lines 41-46); and

B) then comparing said state of use with ancillary data representing said SLA, so as to

determine an action to be undertaken in the event of the detection of at least one

difference between said primary data and said ancillary data (Column 2, lines 41-46);

   Barkan does not explicitly teach:

C) said action to be undertaken is determined in an action group comprising a proposal

to modify the SLA made between said user and said operator and/or a proposal to

modify the services and/or resources of said network; and

D) at least some of the SLA modification proposals are adapted according to said

difference detected; and

E) wherein said action to be undertaken is performed by a processing means of a

device.

   Tunnicliffe, however, teaches **"said action to be undertaken is determined in**

an action group comprising a proposal to modify the SLA made between said

user and said operator and/or a proposal to modify the services and/or resources

of said network" as "the customer obtains predicted values for his bandwidth levels,

for example, and this information is used automatically by his agent on his behalf to

renegotiate the service level agreement" (Column 2, lines 42-46), **"at least some of the**

SLA modification proposals are adapted according to said difference detected"

as "an agent reasons about an offer and either accepts, rejects or generates a counter-

offer is represented by a negotiation model" (Column 6, lines 53-55), and "wherein said

action to be undertaken is performed by a processing means of a device" as

"Preferably, said communications network comprises at least two agents, each agent

comprising a computer system provided with at least one communication link to another agent, said computer system being arranged to accept the results of the comparison and further comprising information about the threshold value, a set of criteria and a set of actions" (Column 2, lines 23-30) and "The operator is able to predict short term future demand on the network. This can allow the operator, or automatic process (such as an agent), to pro-actively reconfigure resources to cope with any increase in traffic before services become affected" (Column 4, lines 19-24)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Tunnicliffe's** would have allowed **Barkan's** to provide a simple and easy to use method to manage a customer network with different customers having different priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 13, **Barkan** does not explicitly teach a method comprising:
A) <u>characterized</u> in that at least some of the proposals to modify the services and/or resources of said network (N) are adapted according to at least one proposal to modify the SLA.

Tunnicliffe, however, teaches **"<u>characterized</u> in that at least some of the proposals to modify the services and/or resources of said network (N) are adapted according to at least one proposal to modify the SLA"** as "an agent reasons about an offer and either accepts, rejects or generates a counter-offer is represented by a negotiation model" (Column 6, lines 53-55).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because teaching

Tunnicliffe's would have allowed **Barkan's** to provide a simple and easy to use

method to manage a customer network with different customers having different

priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 14, **Barkan** further teaches a method comprising:

A) <u>characterized</u> in that at least some of the proposals to modify the services and/or

resources of said network are adapted according to <u>external</u> data (Column 5, lines 30-

34).

Regarding claim 15, **Barkan** does not explicitly teach a method comprising:

A) <u>characterized</u> in that at least some of the states of use are determined in the form of

a usage profile (SUP) in a chosen time interval, from management data corresponding

to said time interval.

Tunnicliffe, however, teaches "<u>**characterized** in that at least some of the</u>

states of use are determined in the form of a usage profile (SUP) in a chosen time

interval, from management data corresponding to said time interval" as "the trends

analyser is trained using historic logs of network traffic, allowing its neural network to

learn expected network traffic behavioral patterns. Once trained the trends analyser is

able to predict future traffic demand based on the current monitored traffic, which may

be presented to the user graphically" (Column 5, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Tunnicliffe's** would have allowed **Barkan's** to provide a simple and easy to use method to manage a customer network with different customers having different priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 16, **Barkan** further teaches a method comprising:

A) characterized in that some actions to be undertaken are determined from several states of use associated with different users or a state of use associated with a group of users (Column 5, lines 30-34).

Regarding claim 17, **Barkan** does not explicitly teach a method comprising:

A) characterized in that an SLA modification is instituted automatically when at least one condition is satisfied.

Tunnicliffe, however, teaches **"characterized in that an SLA modification is instituted automatically when at least one condition is satisfied"** as "the customer obtains predicted values for his bandwidth levels, for example, and this information is used automatically by his agent on his behalf to renegotiate the service level agreement" (Column 2, lines 42-46, Figure 1), and **"when at least one condition is satisfied"** as "traffic levels are only one example of an operations measurement that can be predicted and used for network management" (Column 3, lines 22-31, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Tunnicliffe's** would have allowed **Barkan's** to provide a simple and easy to use method to manage a customer network with different customers having different priorities and requirements, as noted by **Tunnicliffe** (Column 1, lines 37-41).

Regarding claim 18, **Barkan** further teaches a method comprising:

A) <u>characterized</u> in that said SLA modification is instituted when it is associated with an increase in the tariff of the user less than a penalty representing the violation of the SLA by the user (Column 2, lines 41-46).

Regarding claim 19, **Barkan** further teaches a method comprising:

A) <u>characterized</u> in that the determinations are made periodically (Column 9, lines 56-60).

Regarding claim 20, **Barkan** further teaches a device comprising:

A) Use of the method, processing device and management device according to claim 1 in networks chosen from a group comprising Internet (IP), ATM, Frame Relay, SDH and WDM networks (Column 3, lines 66-67-Column 4, lines 1-4).

Response to Arguments

8.   Applicant's arguments filed on 07/14/2006 have been fully considered but they are not persuasive.

Applicant goes on to argue on page 7, that **"Differently, the present invention as recited in claim 1, describes that a processing means of a device...Nowhere does Tunnicliffe describe that a processing means (of a device) perform these operations"**. However, the examiner wishes to point to Column 2 of **Tunnicliffe** and refer to the fourth paragraph which states "Preferably, said communications network comprises at least two agents, each agent comprising a computer system provided with at least one communication link to another agent, said computer system being arranged to accept the results of the comparison and further comprising information about the threshold value, a set of criteria and a set of actions" (Column 2, lines 23-30). The examiner further wishes to point to Column 4 of **Tunnicliffe** and refer to the fourth paragraph which states "The operator is able to predict short term future demand on the network. This can allow the operator, or automatic process (such as an agent), to pro-actively reconfigure resources to cope with any increase in traffic before services become affected" (Column 4, lines 19-24). The examiner wishes to state that the agent of **Tunnicliffe** is clearly an automated process that is accomplished via a processing means of a device (see "computer system" (Column 2, line 24).

Applicant goes on to argue on page 7, that **"Applicant submit that neither Barkan nor Tunnicliffe, either alone or in combination, discloses or suggests a processing means that adapts at least some of the proposals...the processing means of the claimed device performs said operations"**. However, the examiner

wishes to point to Column 2 of **Tunnicliffe** and refer to the fourth paragraph which

states "Preferably, said communications network comprises at least two agents, each

agent comprising a computer system provided with at least one communication link to

another agent, said computer system being arranged to accept the results of the

comparison and further comprising information about the threshold value, a set of

criteria and a set of actions" (Column 2, lines 23-30). The examiner further wishes to

point to Column 4 of **Tunnicliffe** and refer to the fourth paragraph which states "The

operator is able to predict short term future demand on the network. This can allow the

operator, or automatic process (such as an agent), to pro-actively reconfigure resources

to cope with any increase in traffic before services become affected" (Column 4, lines

19-24). The examiner wishes to state that the agent of **Tunnicliffe** is clearly an

automated process that is accomplished via a processing means of a device (see

"computer system" (Column 2, line 24).

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent 5,893,905 issued to **Main et al.** on 13 April 1999. The subject matter

disclosed therein is pertinent to that of claims 1-20 (e.g., methods to monitor and alert

service level agreement discrepancies).

U.S. Patent 6,681,232 issued to **Sistanizadeh et al.** on 20 January 2004. The

subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to

monitor and overlook service level management).

U.S. PGPUB 2003/0229759 issued to **Doyle et al.** on 11 December 2003. The

subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to

monitor and overlook service level management).

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-

2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi

Patent Examiner

Art Unit 2168

September 20, 2006

Leslie Wong

Primary Examiner